

Work Order ID 74175

Monday, September 26, 2011 2:48:04 PM

Page 1

Item ID: D205-634-141

Revision ID:

Item Name: Replacement Skidtube

Start Date: 9/26/2011 Start Qty: 1.00

Required Date: 10/14/2011 Req'd Qty: 1.00

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run

Start

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

IIN D205-634

G

100

0.00



DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Photocopy D205-634 bluefile & type labels per PPP D205-634-141 CHG001

N/A

110

0.00



BENDING MACHINE - SKIDTUBES

CNC Bend I

Memo

0.00

CNC Delta 100 Bender

1-Bend as per program D2580.C on CNC Bender and Folio 16

2-Cut tubes as per Dwg. D2580

3- scribe batch# in aft end of tube

OK 12/01/03

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Item ID: D205-634-141

Accept



Setup Start



Revision ID:

Stop



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Start Date: 9/26/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 10/14/2011 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120		0.00							
	Skidtubes								
Skidtubes	Memo 1- Deburr ends and remove bending marks 2- Prepare tube for welding as per QSI 004	0.00							
130	QC5- Inspect part completeness to step on W/O	0.00							
	QC								
Quality Control	Memo	0.00							

BB 12/01/06

1 8 BE 12-01-09

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Customer:

Reference:

Run Start



Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

140

0.00



Skidtubes

Skidtubes

Memo

0.00

1-Weld step D2576 as per Dwg. D2580 and QSI004
A/R 1100 Aluminum Rod

M119712 BE 12-01-09

2-Grind welds on step as per Dwg D2580

BB 12/01/09

3-Weld spacers as per dwg D2580

A/R M119712 BE 12-01-09

4- *** N/A*** Insert D4202-1 spacer, swage as per QSI002 and trim/ grind
flush per QSI002 and dwg. Hold x-bolt with DT9701 Use tube expander 1/2
x17G to start expansion and finish with 1/2 x 18G to achieve dwg dimension.

N/A

5-Drill pilot holes for aft cap using DT 8215 Open holes to 0.208". Deburr

> BB 12/01/10

6-Drill pilot holes for Tow ring using DT8091, open to .640" and Deburr

150

QC10- Inspect visual per QSI004- ground welds

0.00



QC

Quality Control

Memo

0.00

Siz 10/10

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Setup Start



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Stop



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Start Date: 9/26/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 10/14/2011 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan: Date: Tooling: Date:

Stop



QC: Date: SPC (Y/N): Date:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

160

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

170

Pressure Wash per QSI005 4.3

0.00



HandFinish

Memo

0.00

Hand Finishing

Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch and leave fwd cap out of solution.

IXØ M-12/01/11

180

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00



Powdercoat

Memo

0.00

Powder Coating

START TIME:
OVEN TEMPERATURE:
FINISH TIME:

8-40
320°F
9-10

IXØ M-12/01/11

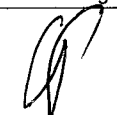
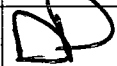
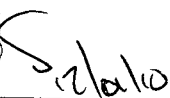

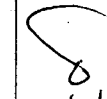
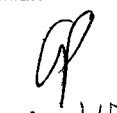
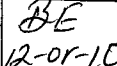
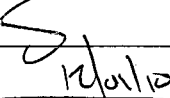

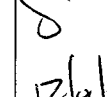
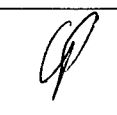

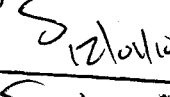
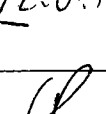
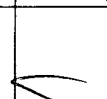



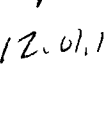
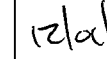
W119480

WORK ORDER CHANGES

DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D205-634-141 PAR #: 12-1154 Fault Category: Std. Issue NCR: Yes No DQA: AK Date: 12/2/2
 Resolution: Rework Disposition: Rework QA: N/C Closed: CK Date: 12/2/2

WORK ORDER NON-CONFORMANCE (NCR)

DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
12/01/10	# 190	Holes missing on skid tube for run on wear plates R.C. missing at inspection + w/o not correct.	 12-01-10 B1042	Lay out holes as per Dwg D2580-7 + Drill Fill out FAI Sheet	 12-1-10 BE	 12/01/10	 12-01-10 B1042	 12/01/10
			 12-01-10	Weld + buff spacers as per D2579 D2579 B <u>783-71</u>	 12-01-10	 12/01/10	 12-01-10	 12/01/10
			 12-01-10	A/2 <u>M119712</u> Grind welds flush + counter bore as per Dwg. + Deburr	 12-1-10	 12/01/10	 12-01-10	 12/01/10
			 12-01-10	Fit w/o + Bom to pull correct D2580-7 not -1 ADD copy of Bom as ref.	 12-01-23	 12-01-24	 12-01-10	 12/01/10

NOTE: Date & initial all entries

Pulling D2500-1-190 material to
make on one work order
12-01-23

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Item ID: D205-634-141

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Setup Start

Revision ID:

Stop

Item Name: Replacement Skidtube

Start Date: 9/26/2011 Start Qty: 1.00

Cust Item ID:

Required Date: 10/14/2011 Req'd Qty: 1.00

Customer:

Reference:

Run Start

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

190

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

1 BR 12-01-11

200

0.00



HandFinish

Memo

0.00

Hand Finishing

1 BR 12-1-11

1-Install wearplates as per Dwg. D2580.

2-Coat D2594-3 O' rings with Petroleum Jelly and install on D2594-1 plugs as per Dwg D2580

3-Inspect for foreign object per QSI 024

4-Install 2855 Aft Cap as per Dwg D2580 and seal Fwd Step & Aft Cap with Sikaflex. Clean excess adhesive
A/R [] [] [] Sikaflex-291 M119508
Sikaflex expire date: 12-8.5-Wing Walk as per Dwg D2580 and QSI 005 4.4
Batch: 119094.

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Item ID: D205-634-141

Accept

Setup Start

Revision ID:

Stop

Item Name: Replacement Skidtube

Start Date: 9/26/2011 Start Qty: 1.00

Cust Item ID:

Required Date: 10/14/2011 Req'd Qty: 1.00

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

210

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

5/26/12

Quality Control

Inspect Aft Cap, Fwd Step and Wing Walk of work to Current Step Inspect for Foreign objects per QSI 024

Pro

220

Packaging

0.00



Packaging

Memo

0.00

PP 7414

Packaging

Identify and pack for shipping as per PPPD205-634-141

12/1/12

Location: _____

PPP Rev: _____

230

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

12/1/12

Quality Control

MF
12-01-12

W/O: 14195		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D205-634-141 PAR #: Fault Category: Design NCR: Yes No DQA: Yes Date: 12/1/25
 12-115 Resolution: Rework Disposition: Rework QA: N/C Closed: Yes Date: 12/1/25

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
		Durbin Assembly Found that the D4406-043 (wear plate) Doesn't fit. has large gap underneath to mating surface of skid tube. R.C. Design	<u>MD</u> 12/1/12	Fill two Aft hubs with welds as per QSL005. A/R <u>M114509</u> Locat + Re Drill holes for better fit.	<u>EL</u> 12-1-12	S 12/1/12	<u>MD</u> 12/1/11	S 12/1/11
				Re apply Rocker guard where it has been removed. M114947	<u>EL</u> 12-1-12		S 12/1/12	S 12/1/11

NOTE: Date & initial all entries

Picklist Print

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Work Order ID: 74175

Parent Item: D205-634-141

Parent Item Name: Replacement Skidtube

Start Date: 9/26/2011

Required Date: 10/14/2011

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP RevA 11.09.14 new issue EC verified by:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

AN4-45A

Purchased

No

Each

200.0000

8



Bolt

Location

Loc Qty

Loc Code

ST349

200

118926 ✓

200

D2570

Manufactured

No

Each

122.0000

16



Bushing

Location

Loc Qty

Loc Code

ST017

122

77422

1

66933

6

67759

1

72122

72

72960

42

73636

Each

443.0000

20

D205-634-141

D2579

Manufactured

No



Spacer

Location

Loc Qty

Loc Code

LG002

443

66929

106

67129

196

67308

1

67430

140

BR 12-01-11

BR 12-1-11

BE 12-01-09

B 77040 x5
B 78371 x15

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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NOTE: Date & initial all entries

Picklist Print

Monday, September 26, 2011 2:48:01 PM

Work Order ID: 74175

Parent Item: D205-634-141

Parent Item Name: Replacement Skidtube

Start Date: 9/26/2011

Required Date: 10/14/2011

Start Qty: 1.00

Required Qty: 1.00

D4406-041 Manufactured No

Each 1.0000

1



Fwd Wearplate Assembly



BL 12-1-11.

Location

Loc Qty

Loc Code

ST 74147
71909

1

1

Each

1.0000

1

D4406-043 Manufactured No



Aft Wearplate Assembly



BL 12-1-11.

Location

Loc Qty

Loc Code

ST 74148.
72640

1

1

Each

252.0000

8

MS21042-4 Purchased No



USE MS21042L4 ✓



BL 12-1-11.

Location

Loc Qty

Loc Code

ST299 119017.
100743
5389
5461
6844
7690
8182
9229

252

9

78

3

19

24

115

4

Each

1.0000

1

D2580-1 Manufactured No



205 Skidtube bent detail



577680

BL 12/2/12

Location

Loc Qty

Loc Code

LG

1

72965

1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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Work Order ID: 74175

Parent Item: D205-634-141

Parent Item Name: Replacement Skidtube

Start Date: 9/26/2011

Required Date: 10/14/2011

Start Qty: 1.00

Required Qty: 1.00

D2576-3 Manufactured No

Each 72.0000 1



Step (machining detail)

Location Loc Qty Loc Code

LG 72

66156 22

70883 50

D2855 Manufactured No

Each 18.0000 1



Cap

Location Loc Qty Loc Code

FP007 73347 18

65519 2

65569 16

AN3-5A Purchased No

Each 886.0000 2



Bolt

Location Loc Qty Loc Code

ST350 886

115371 46

117423✓ 540

118626 300

AN960JD10L * NAS1149D0332✓ Purchased No

Each 0.0000 2



Washer

119042

BE 12-01-09

BR 12-1-11.

BR 12-1-11.

BR 12-1-11

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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Picklist Print

Monday, September 26, 2011 2:48:02 PM

Work Order ID: 74175

Parent Item: D205-634-141

Parent Item Name: Replacement Skidtube



Start Date: 9/26/2011

Required Date: 10/14/2011

Start Qty: 1.00

Required Qty: 1.00

D2594-3 Manufactured No

Each 884.0000 8



O-Ring, 205 Skidtube



BL 12-1-11.

Location	Loc Qty	Loc Code
FP004	198	
73490	198	
FP-A	686	
65518	41	
66952	347	
73490 ✓	298	8.

D2594-1 Manufactured No

Each 254.0000 8



Plug, 205 Skidtube



BL 12-1-11.

Location	Loc Qty	Loc Code
FP 76075	172	8.
73401	172	
FP-A	82	
42807	28	
67441	7	
72127	47	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

LIST OF MATERIALS					
ITEM	QTY -041	QTY -045	QTY -047	PART NUMBER	DESCRIPTION
1	X			D2580-041	SKIDTUBE ASSEMBLY
2		X		D2580-045	SKIDTUBE ASSEMBLY
3			X	D2580-047	SKIDTUBE ASSEMBLY
4	1	1	1	D2500-1-190	EXTRUSION
5			16	D2570	BUSHING
6	1	1	1	D2576-3	STEP
7	20	24	25	D2579	SPACER
8	16	16	8	D2594-1	PLUG
9	16	16	8	D2594-3	O-RING
10	1	1	1	D2596	205 WEB
11	1	1	1	D2855	AFT CAP
12	1	1		D3564-5	WEARSHOE
13	1	1		D3564-9	WEARSHOE
14	1	1		D3564-11	WEARSHOE
15	1	1		D3564-13	WEARSHOE
16	2	2		D3566-1	GASKET
17	1	1		D3566-5	GASKET
18	1	1		D3566-13	GASKET
19			1	D4406-041	WEARPLATE ASSEMBLY
20			1	D4406-043	WEARPLATE ASSEMBLY
21	50	50		ALS7-1032-130 or AKS7-1032-130 or AKS4-1032-130 or AELS-1032-130	INSERT
22	50	50		AN3C4A	BOLT
23	2	2	2	AN3-5A	BOLT
24			8	AN4-45A	BOLT
25	50	50		NAS1149C0332R	WASHER (AN960C10L)
26	2	2	2	NAS1149D0332J	WASHER (AN960D10L)
27			8	MS21042-4	NUT (OR MS21042L4)

GENERAL NOTES:

- MATERIAL: N/A
- FINISH: CHEMICAL CONVERSION PER DART QSI 005 4.1 PRIOR TO INSERTING D2596 WEB
POWDER COAT ASSEMBLY (-041/-047) GLOSS WHITE (REF 4.3.5.1) PER DART QSI 005 4.3
POWDER COAT ASSEMBLY (-045) GREEN SANDEX (REF 4.3.5.8) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT AS INDICATED PER DART QSI 005 4.4.
- TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- UNITS: INCHES UNLESS OTHERWISE NOTED.
- BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- IDENTIFICATION: NONE
- WEIGHT: D2580-041 = 34.5 lbs
D2580-045 = 34.5 lbs
D2580-047 = 37.7 lbs
- WELDING PER DART QSI 004.
- INSERT D2596 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241 ADHESIVE PER DART QSI 015 BEFORE BENDING. ENSURE HOLES LINE UP.
- BEND AS A SMOOTH RADIUS STARTING WITH A MAXIMUM CENTERLINE RADIUS OF 60 AND ENDING WITH A MINIMUM RADIUS OF 30. A MAXIMUM REDUCTION OF 0.200 IN DIAMETER IS ALLOWABLE IN THE BENT PORTION OF THE TUBE.
- USE DART DRILL TEMPLATE DT8217 & DT8937 ONLY FOR D2580-041/-045 TO LOCATE AND DRILL Ø0.297 HOLES FOR WEARSHOE INSERTS. INSTALL ALS7-1032-130 PER SECTIONS B-B AND F-F (50 PLACES) AFTER FINISH. INSTALL AN3C4A BOLTS AND NAS1149C0332R WASHERS WITH SIKAFLEX-241/-291.
- INSERT D2594-1 PLUG C/W D2594-3 O-RING IN HOLES MARKED 'P' (BOTH SIDES OF TUBE) AFTER FINISH (16 PLACES FOR D2580-041/-045 AND 8 PLACES FOR D2580-047)
- IT IS ACCEPTABLE TO GRIND A RELIEF IN THE D2855 AFT CAP TO PREVENT INTERFERENCE WITH THE SPACER AT THIS LOCATION

RELEASED
2011-08-29
w

w/o 24075



E	ADD D2580-047 (ZN C4-7) AND D2580-7 (ZN B3-8); INCLUDED DEO D2580-D-1; REFORMATTED DRAWING TO CURRENT STANDARDS; DT8217 & DT8937 WAS TD2577-205 (ZN C4-1)	RF	11.06.21
D	CHANGE TO SS WEARPLATES AND GASKETS, INCLUDE DEO 9124/ 9183	PH	07.04.05
C	REDRAWN, INCLUDED DEO 9094/ 9097	CP	98.08.26
B	AS MANUFACTURED	DS	96.12.02
A	NEW ISSUE	DS	96.09.16
REV.	DESCRIPTION	BY	DATE
DESIGN	#		
DRAWN	RF		
CHECKED	14		
MFG. APPR.	14		
APPROVED	14		
DE APPR.	14		
DATE	11.06.21		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DRAWING NO. D2580 REV. E SHEET 1 OF 8 TITLE 205 SKIDTUBE ASSEMBLY SCALE NTS COPYRIGHT © 1996 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.			

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

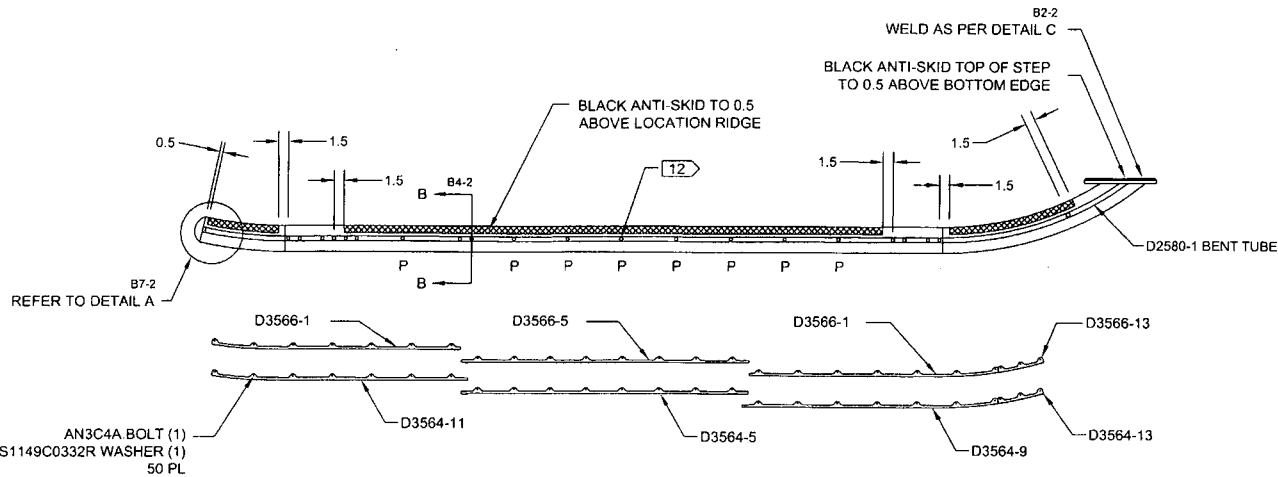
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Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

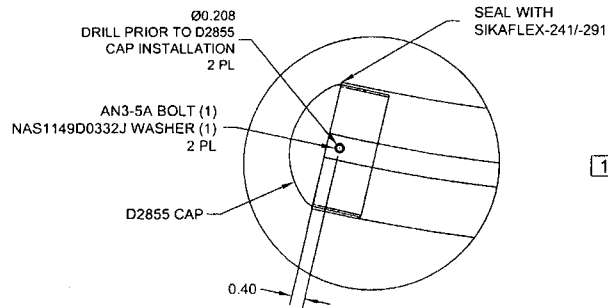
NOTE: Date & initial all entries

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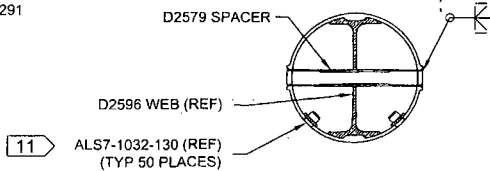


D2580-041 ASSEMBLY DETAIL

DETAIL A
SCALE 5X

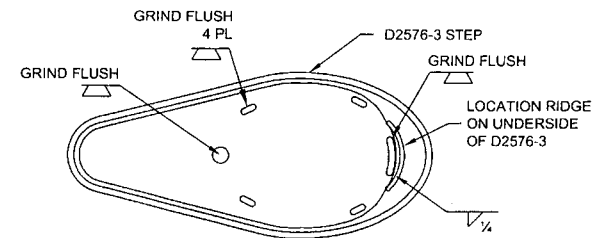


SECTION B-B
SCALE 5X



- AFTER DRILLING AND BENDING ASSEMBLY
PERFORM THE FOLLOWING FOR Ø0.508 HOLES ONLY:
1. CHAMFER HOLE 0.050 X 45°
 2. INSERT D2579 SPACER (20 PLACES)
 3. WELD INTO PLACE AND GRIND FLUSH
 4. C'BORE D2579 SPACER TO Ø0.437 X 1.00 DEEP

DETAIL C
SCALE 5X



DESIGN	#	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	10	DRAWING NO.	REV. E
MFG. APPR.	10	D2580	SHEET 2 OF 8
APPROVED	10	TITLE	SCALE
DE APPR.	10	205 SKIDTUBE ASSEMBLY	NTS
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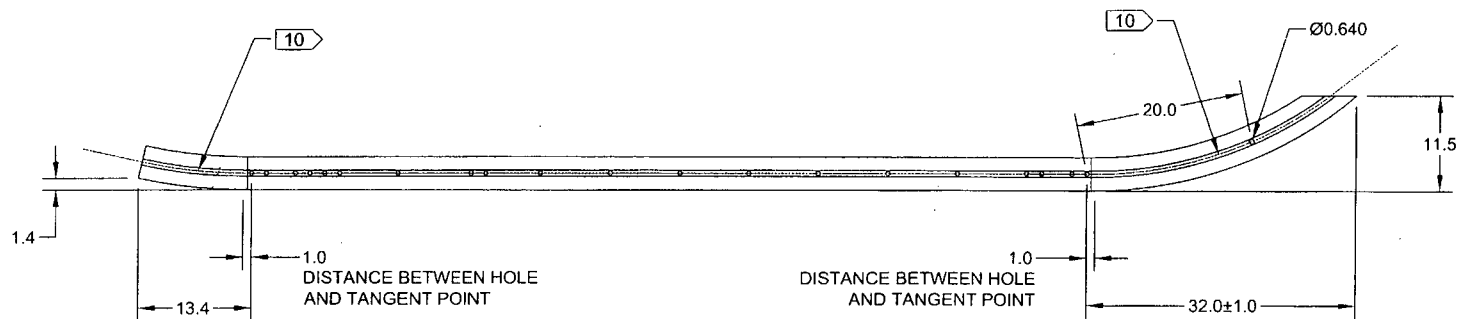
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



D2580-1 BENT TUBE
(MAKE FROM D2580-101 TUBE)

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2011-08-28
WY

DESIGN	<i>[Signature]</i>	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. E
MFG. APPR.	<i>[Signature]</i>	D2580	SHEET 3 OF 8
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	205 SKIDTUBE ASSEMBLY	NTS
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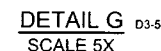
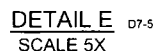
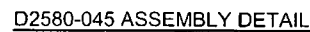
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

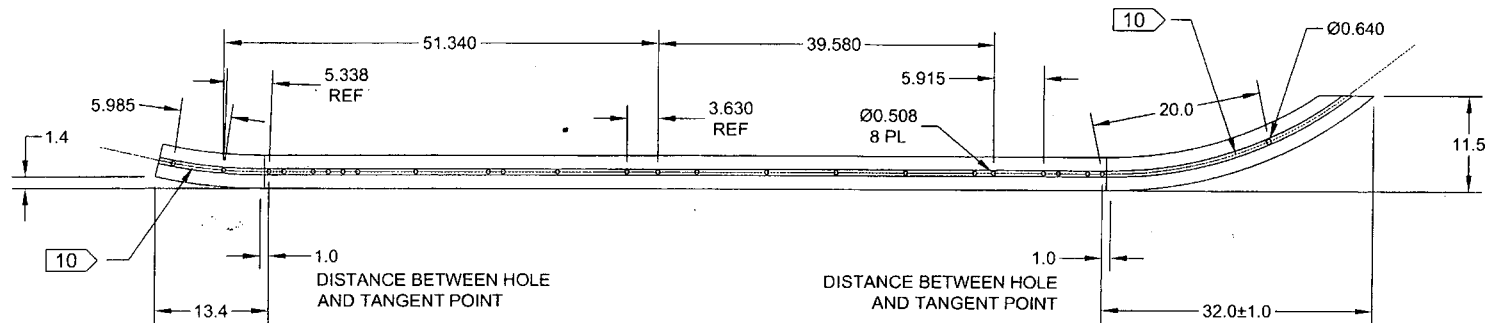
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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



1. CHAMFER HOLE 0.050 X 45°
2. INSERT D2579 SPACER (24 PLACES)
3. WELD INTO PLACE AND GRIND FLUSH
4. C'BORE D2579 SPACER TO Ø0.437 X 1.00 DEEP

DESIGN	4	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	10	DRAWING NO.	REV. 1
MFG. APPR.	10	D2580	SHEET 4 OF 4
APPROVED	10	TITLE	SCALE
DE APPR.	4	205 SKIDTUBE ASSEMBLY	NT
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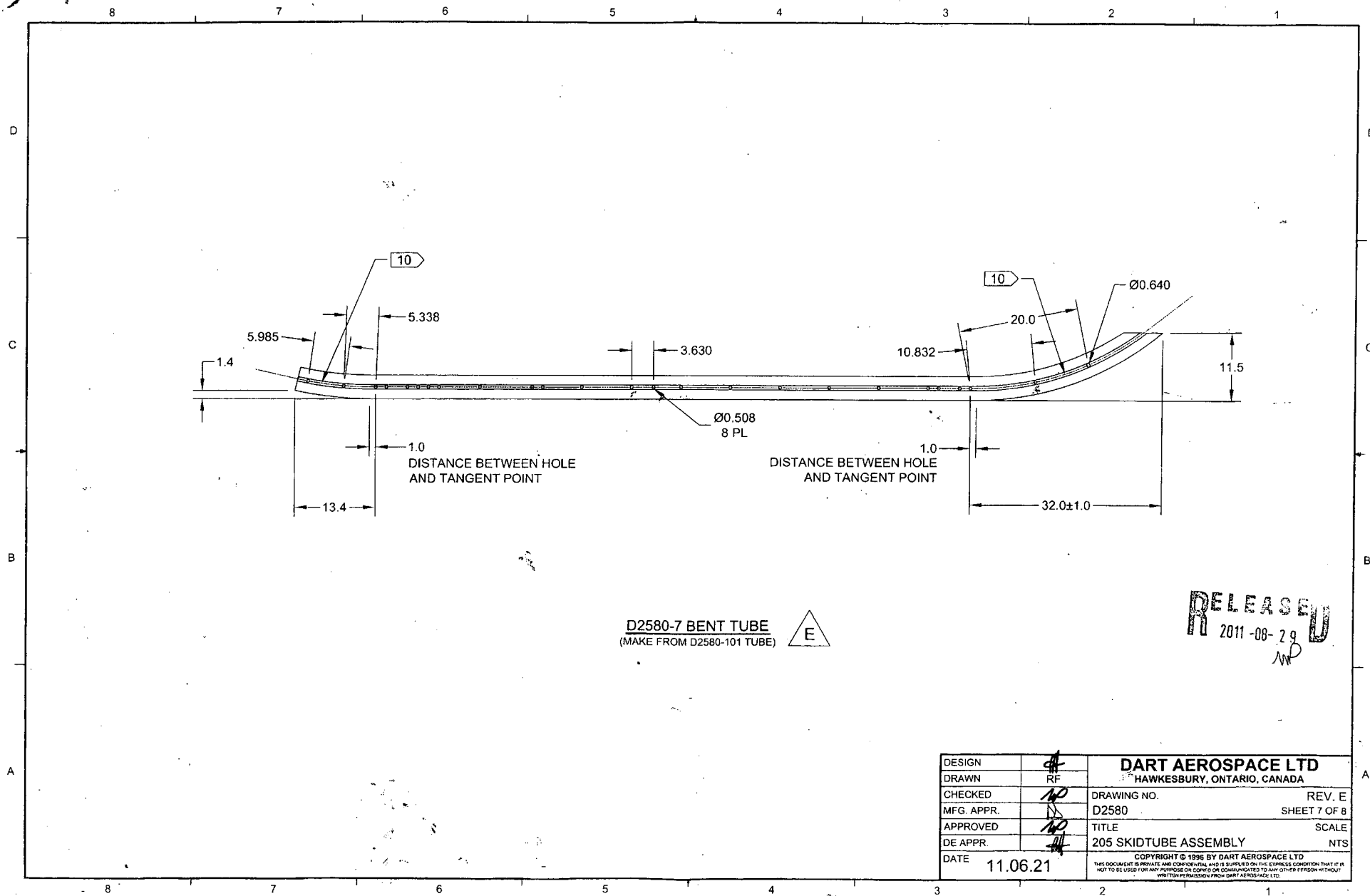


D2580-5 BENT TUBE
(MAKE FROM D2580-101 TUBE)

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2011-08-29

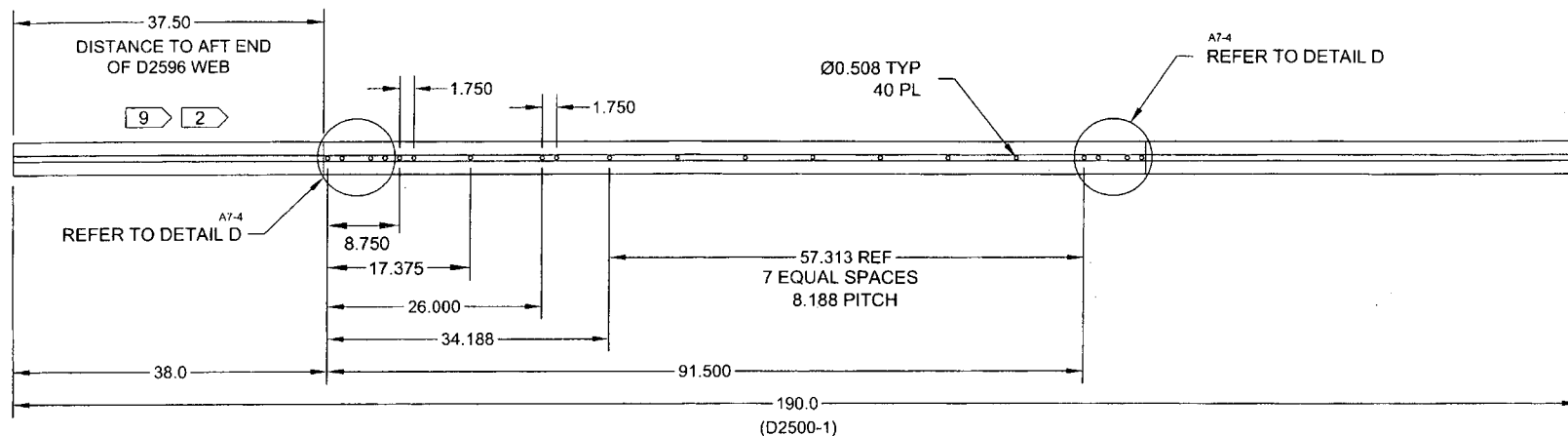
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DRAWN	RF		
CHECKED	RF	DRAWING NO.	REV. E
MFG. APPR.	RF	D2580	SHEET 5 OF 8
APPROVED	RF	TITLE	SCALE
DE APPR.	RF	205 SKIDTUBE ASSEMBLY	NTS
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0.21825

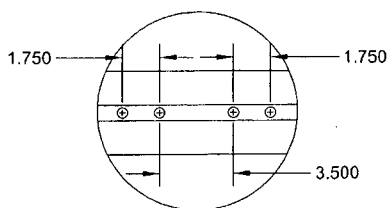


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CHECKED	10	DRAWING NO.	REV. E
MFG. APPR.	10	D2580	SHEET 7 OF 8
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D2580-101 TUBE



DETAIL D D3-4
C7-4
SCALE 5X

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2011-08-29

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CHECKED	RF	DRAWING NO.	REV. E
MFG. APPR.	RF	D2580	SHEET 8 OF 8
APPROVED	RF	TITLE	SCALE
DE APPR.	RF	205 SKIDTUBE ASSEMBLY	NTS
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NO. 275

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Barclay Elliot
Job number: 76550
Part number: 205-634-041
Description: SKID Tube
Welding Process: Tig[☒] Mig[]
Base material: Alum
Current: AC[☒] DC[]

TEST REQUIREMENTS AND RESULTS

Visual: pass[☒] fail[]
Penetration: pass[☒] fail[]

UNACCEPTABLE

Cracks: pass[☒] fail[]
Undercut: pass[☒] fail[]
Pin holes: pass[☒] fail[]
Overlap (cold lap): pass[☒] fail[]
Porosity (surface): pass[☒] fail[]
Coloration: pass[☒] fail[]

Qualifier Sayed Samir Date of Test Coupon 11.11.22
Welder Barclay Elliot Date of Test Coupon 11.11.22

The above named individual is qualified in accordance with AWS D17.1.2001 to weld